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Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities Under RCRA, Subtitle C, Section 3004 Standards for Personnel Training (40 CFR 264.16); Interim Status Standards for Personnel Training (40 CFR 265.16)

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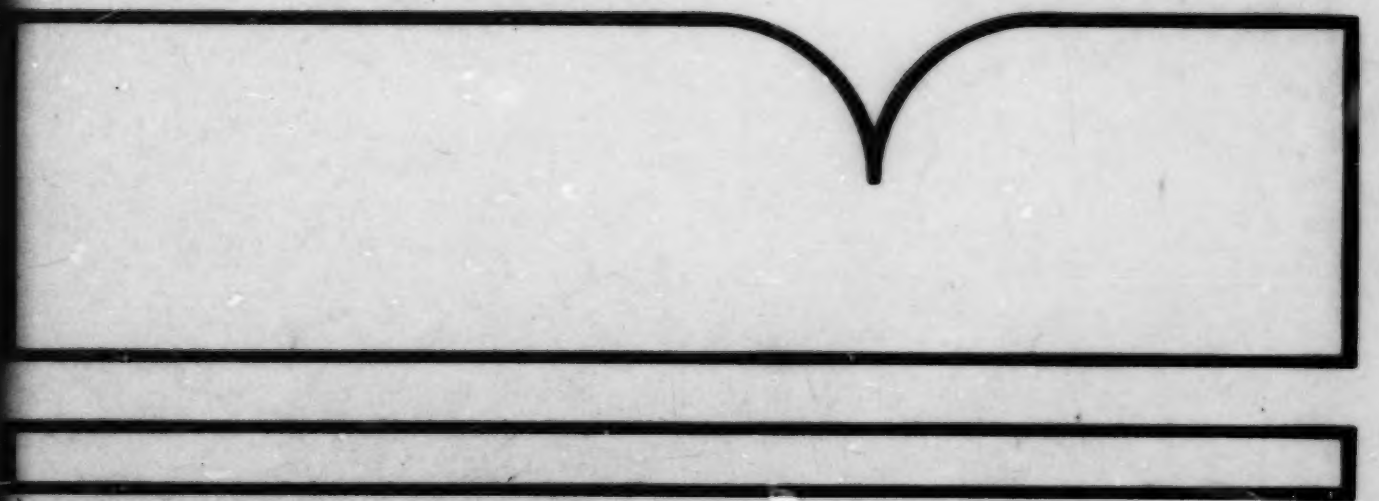

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BACKGROUND DOCUMENT

STANDARDS APPLICABLE TO OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES UNDER RCRA, SUBTITLE C, SECTION 3004

Standards for Personnel Training
(40 CFR 264.16);
Interim Status Standards for Personnel Training
(40 CFR 265.16)

This document (ms. 1941.6) provides background information and support for EPA's hazardous waste regulations

U.S. ENVIRONMENTAL PROTECTION AGENCY
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16. Abstract (Limit: 200 words) This document is one of a series providing support for regulations issued by the U.S. Environmental Protection Agency (EPA) under Subtitle C of the Resource Conservation and Recovery Act (RCRA). The regulations represent the initial effort for nationwide control of hazardous waste from point of generation, through transportation, treatment, and storage, to point of ultimate disposal.

This document covers standards applicable to hazardous waste management facilities, specifically those covering personnel training requirements.

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FOREWORD

This is one of a series of documents providing support and background information for regulations issued under Section 3004 of the Resource Conservation and Recovery Act (RCRA). This background document is divided into two parts. The first part contains introductory material which addresses the Congressional authority for the regulation, key definitions used in the regulation, examples of damage incidents which illustrate the need for the regulation, and a description of precedents set for the regulation by state and/or other Federal statutes. The second part of this document describes the regulation as originally proposed, summarizes and responds to comments received that relate to the proposed regulation, and indicates the Agency's rationale for the final regulation.

On December 18, 1978, in §250.43-4 of the RCRA Section 3004 regulations, the Agency proposed standards for training for personnel at hazardous waste facilities. As specified in §250.40(c)(2)(iii) of the proposed rules, the proposed §250.43-4 standards also applied to personnel at facilities with interim status. This document addresses these proposed personnel training standards.

The text of the final standards for personnel training is contained in Appendix II of this document.

INTRODUCTION AND RATIONALE FOR THE REGULATION

I. RCRA Authority for the Regulation

In Section 3004 of Subtitle C of the Solid Waste Disposal Act, as substantially amended by the Resource Conservation and Recovery Act (RCRA) of 1976, as amended (42 U.S.C. §§6901 et seq.), the Congress of the United States requires the Administrator of the U.S. Environmental Protection Agency (EPA) to promulgate regulations to establish such standards for hazardous waste treatment, storage, and disposal facilities as may be necessary to protect human health and the environment.

Section 3004(6) of RCRA states that the standards to be promulgated by the EPA must include requirements for

> "... such additional qualifications as to ... training for personnel ... as may be necessary or desirable;"

EPA is establishing regulations to ensure that personnel at hazardous waste facilities have the requisite skills and knowledge to perform their tasks in a consistently competent manner. Such training is necessary to protect human health and the environment from the risks of operating hazardous waste facilities with inadequately trained personnel.

II. Key Definition:

The following term, which is defined in Part 260, is pertinent to this area of regulation:

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"Personnel" or "Facility Personnel" means all persons who work at, or oversee the operations of a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of Parts 264 or 265 of this Chapter.

This definition has been changed slightly from the proposed version, by the addition of the phrase "or oversee the operations of". This phrase has been added in order to clarify that the term "personnel" applies to supervisory as well as non-supervisory personnel.

In addition, a commenter suggested that the word "damage", in the proposed version of the definition, should be replaced by the phrase "a substantial present or potential hazard" because:

(1) the word "damage" is unquantified, and therefore ambiguous; and

(2) the suggested word change will bring the definition of "hazardous waste facility personnel" into line with the definition of "hazardous waste" given in Section 1004(5) of RCRA.

The Agency agrees that the suggested word change makes the definition of "personnel" more specific than the proposed version of the definition. However, rather than key the definition of "personnel" to the potential for an employee to cause "a substantial present or potential hazard to human health or the environment", the Agency believes that keying the definition to the potential for an employee to cause a facility to fail to comply with the Section 3004

standards, is even more specific than the commenter's suggested word change. Therefore, the final definition of "personnel" includes those employees whose actions, or failure to act, may result in non-compliance with the requirements of 40 CFR Parts 264 or 265 of this Chapter.

The Agency has deleted the definition of "training", specified in §250.41(a)(86) of the proposed rules, from the final regulations. The proposed definition of "training" specified the instruction which was required to be received by facility personnel. Since both the proposed and final standards specify the training required of facility personnel, the Agency believes that the proposed definition of "training" is unnecessary.

III. Damage Cases

The cases described below are good examples of the types of damage that can result when facility personnel lack sufficient expertise in the areas to which they are assigned. They provide part of the rationale for EPA's decision to establish standards for the training of hazardous waste facility personnel.

(1) In October, 1974, a bulldozer operator was killed in an explosion at an industrial landfill in Edison Township, New Jersey, as he was burying and compacting several 55 gallon drums of unidentified chemical wastes.[1]

(2) In 1978, a truck driver died while dumping a load of chemicals into an open pit in Bayou Sorrel, Louisiana. According to the coroner's report, the cause of death was hydrogen sulfide asphyxiation,

which was generated by the placement of the chemicals onto other wastes which had previously been placed in the pit.[2]

(3) In the summer of 1974, a bulldozer operator experienced dizziness and eye irritation while burying drums at a sanitary landfill in Michigan. He left the bulldozer, and upon returning found the machine in flames. The fire was caused by ignition of flammable wastes in the drums that he was burying. The landfill operator had unknowingly received flammable wastes from a waste hauler.[3]

(4) An employee of a Dakota County (Minnesota) landfill was seriously burned when a caterpillar tractor that he was operating crushed and ignited a container of flammable solvent. The container was not suspected to contain flammable waste because the landfill was not licensed to dispose of flammable waste. The employee suffered burns over 85% of his body and was hospitalized in intensive care for four and one-half months.[4]

Damage incidents (1) through (4) illustrate the need to instruct facility personnel of the importance of knowing the identity and chemical properties (e.g., reactivity and incompatibility with other wastes) of the wastes which they are assigned to manage. They also illustrate the interdependence of the Section 3004 standards to achieve their intended collective purpose, i.e., protection of human health and the environment from the improper management of hazardous waste. Damage incidents (1) through (4) point out that, at facilities where employees who analyze waste are different from those who dispose of it, if one employee fails to analyze waste properly, the employee who disposes of it may adversely affect human health and the environment even though he performs his job in accordance with good management practices. Thus, regardless of how well some employees are trained at

hazardous waste facilities, unless all employees are sufficiently trained to perform their jobs, the potential for damage to human health and the environment exists.

IV. State Regulations

The Agency reviewed several States' solid waste management regulations to assess the State governments' perceived need to establish training standards for people who manage solid and/or hazardous waste. Although the specificity of these regulations varies considerably from State to State, their very existence reflects the State governments' belief that training requirements should be established for personnel who are employed at solid and/or hazardous waste facilities. The following discussion describes the training standards prescribed by the States of Oregon, Connecticut, Arkansas, and New York.* The influence which these States' regulations had in the development of the training requirements prescribed in the RCRA Section 3004 rules, is described in the next section of this document.

At one end of the spectrum are the training requirements for Oregon, which are written in terms of a general performance standard. These regulations simply require that all facility personnel be trained in proper procedures for the handling, transfer, transport, and storage of hazardous waste, including, but not limited to, familiarization with contingency plans.

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* Citations for these regulations are contained in Appendix I.

Connecticut's and Arkansas' training requirements, on the other hand, are far more specific than those of Oregon. They require that facility operators be certified, and they establish certain minimum criteria which must be met before certification is granted.*

In addition to requiring training for facility operators, Arkansas' regulations specify that non-supervisory personnel at facilities must also receive sufficient training to:

- read and comprehend label instructions, operational procedures, contingency plans and regulatory directives;
- understand the basic nature of the materials which they are assigned to manage; and
- operate all equipment which they are assigned to operate.

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* In Connecticut, certification of facility operators is contingent upon:

- demonstrating to the Commissioner that the operator has had sufficient training (on-the-job or classroom instruction) in procedures for operating a solid waste facility so that he is able to oversee the operation of a facility in accordance with applicable State and Federal laws and regulations; and
- passing an examination (written, oral, or performance oriented) which is designed to test the applicant's knowledge of facility operating procedures that affect public health, safety, and the environment.

In Arkansas, certification of operators involves no formal testing. However, Arkansas does require that the applicant's qualifications include:

- a bachelor of science degree in engineering or in physical sciences; and
- at least four years of experience in management, engineering, or in conducting chemical/physical analyses.

Arkansas requires that facility personnel receive this training within 12 months of the effective date of its regulations.

The State of New York takes a different approach to the training requirement. New York's regulations do not specify the type of skills or knowledge which must be acquired in order to comply with its regulations. Instead, the State requires that all personnel at solid and/or hazardous waste facilities attend a training course which the State either provides or approves.

New York's compliance schedule is slightly more lenient than Arkansas'. New York allowed personnel at existing facilities up to 18 months from the effective date of its regulations to attend the training course. However, new personnel at existing facilities, and all employees at new facilities, must attend the training course within 12 months of their date of employment at the facility.

ANALYSIS OF STANDARDS FOR PERSONNEL TRAINING

Standards for training for personnel at hazardous waste facilities were specified in §250.43-4 of the RCRA Subtitle C regulations proposed on December 18, 1978. As specified in §250.40(c)(2)(iii), the §250.43-4 training standards also applied to personnel at facilities with interim status.

In the final rules, the training standards applicable to permitted facilities (prescribed in §264.16 of the final rules), are identical to the training standards applicable to facilities with interim status (prescribed in §265.16 of the final rules). Because they are identical, no distinction is made between the two sets of standards in this document.

The order of the training standards in the proposed rules is different from the order of the training standards in the final rules. In this document, the proposed training standards are analyzed in the order in which the final version of these standards appear in the final rules.

I. Proposed Standard 250.43-4(a)

A. Summary of Proposed Standard

The proposed standard required that, within six months of the effective date of the regulations, or within six months after the date of employment at a hazardous waste facility, all personnel at hazardous waste facilities must:

(1) complete a course of instruction which enables them to perform their duties, or

(2) demonstrate that they are sufficiently competent to perform their duties.

B. Rationale for the Proposed Standard

The purpose of the standard was to reduce the potential for mistakes which might threaten the public or the environment by ensuring that facility personnel acquire expertise in the areas to which they are assigned.

Like New York and Arkansas, the Agency specified a deadline for acquiring the requisite training. The Agency's selection of 6 months from the effective date of the regulations for this deadline, actually gives owners or operators 12 months from the promulgation date of the regulations to ensure that their personnel are adequately trained.

Initially, the Agency had considered an 18 month compliance schedule for the training standard, following the example of New York. However, comments received on pre-proposal drafts of the regulations pointed out that an 18 month compliance schedule would be so generous that--in view of the immediacy and the seriousness of the problem (i.e., incompetent facility personnel)--the intent of the regulations would be undermined.[5]

As a result, the Agency re-evaluated its position on the length of the compliance schedule for the training standard. The following factors influenced the Agency's decision to shorten the time interval from 18 months to 12 months:

1. Training personnel to manage hazardous waste is similar to training personnel to manage hazardous materials. For those facilities which already have training programs in hazardous material management, the major part of these existing programs can be used to fulfill the requirements of the RCRA Section 3004 training standard.[6]
2. Many of the skills which are already required in the Occupational Safety and Health Administration's training requirements[7] are applicable to managing hazardous waste. Thus, the skills which hazardous waste facility personnel have acquired to ensure their own safety will, in large part, fulfill the training requirements of the RCRA Section 3004 rules.
3. In choosing the length of the New York compliance schedule (18 months), that State had to factor in sufficient time for the certification process which its regulations entail (e.g., the administering of exams, the processing of paperwork, the approving of training courses, etc.). Since the RCRA training

requirements do not incorporate a certification program, the Agency does not have to allow for this time-consuming process in selecting the length of the RCRA compliance schedule.

4. Many courses in hazardous waste management (e.g., the National Hazardous Materials Training Course offered by the Toxic Substance Control Laboratory of Vanderbilt University) have been developed in anticipation of the market which will be created by the promulgation of the RCRA Section 3004 training requirements. Thus, there are more courses which facility personnel can attend to comply with the RCRA Section 3004 rules than there were in 1977, when the State of New York promulgated its regulations.

Thus, the Agency believes that it is reasonable to expect facility personnel to be trained in compliance with the Section 3004 standard within this 12 month interval.

C. Summary and Response to Comments

Issue #1: The format/content of the training programs.

a. Summary of Comments:

1. The standard should allow the use of in-house training programs and on-the-job training in lieu of formal classroom instruction.

2. The proposed standard is vague and highly subjective because it does not specify the:

- type, length, or intensity of the required training;
- persons who are considered to be qualified to conduct the required training;
- persons to whom it is to be demonstrated, and the criteria that will be used to determine whether a "sufficient degree of competence in hazardous waste management" has been achieved.

b. Analysis of and Response to Comments

1. The Agency agrees that formal classroom instruction may not always be the best approach to training, and that supervised on-the-job training is a valid substitute for, or supplement to, formal instruction. Therefore, the Agency has reworded the training standard (§264.16(a)), to reflect the Agency's acceptance of in-house training programs and on-the-job training as a means of complying with the training requirements. However, the content, schedule, and techniques to be used in the on-the-job training program must be described in the training records required in §264.16(d)(3) and will be subject to approval during the permitting process.

2. Given the variability in waste types, management processes, and employee functions at hazardous waste facilities, the Agency believes that it is neither necessary no desirable to rigidly specify training

courses in regulations. For example, employees at small operations tend to perform more functions than employees at large operations. Thus, small facilities often require a greater diversity of skills of their employees than do large facilities.[8] Like the State of Oregon, the Agency believes that a general performance standard is an appropriate approach to use in establishing regulations for the training of solid and/or hazardous waste facility personnel. However, the final training standards specify the type of emergency response procedures with which facility personnel must become familiar. The Agency provided specific training requirements for this aspect of the facility's training program because the Agency believes that the ability to respond to emergencies is the most important skill that facility personnel must acquire to minimize the potential dangers associated with hazardous waste facilities. In addition, as stated in the preamble to the proposed regulations, (40 CFR Part 250 Subpart D, p. 58985) the Agency is preparing a training manual which will describe the type of instruction which the Agency believes is appropriate for the various functions carried out at hazardous waste management facilities. This manual will provide general guidance on how to comply with the

final Section 3004 training standards, but the information contained in the manual will not be regulatory requirements with which facility personnel must comply.

In response to the commenters' concerns regarding certification of the training received by hazardous waste facility personnel, the Agency has decided not to include a certification program in its training requirements. In making this decision, the Agency took the following factors into consideration:

1. The many types of wastes involved, the variations in methods and systems of disposal, and the great role of private enterprise in hazardous waste management (which is much greater than in wastewater treatment, where the Agency instituted a certification program) makes it difficult to develop a national certification program for hazardous waste facility personnel.[9]

2. The State certification programs for hazardous waste facility personnel have markedly different requirements for certification, (e.g., compare Connecticut and Arkansas). Thus, it would be difficult to devise a certification program which would reconcile the differing State policies on what qualifications should be required of all facility personnel.

3. §264.16(d) of the regulations requires that the training records of the facility personnel be made available to the Regional Administrator upon request. The Agency believes that because these training records will be subject to scrutiny by the Regional Administrator, facility owners or operators will make a concerted effort to ensure that their personnel are adequately trained.

Based on the above considerations, the Agency decided not to include any provisions for formal certification of either instructors or facility personnel with respect to demonstration of competence in hazardous waste management. The revised language of the final regulation--which allows the use of on-the-job training--provides that any person trained in hazardous waste management procedures may teach the training program.

Issue #2: Exemptions to the training requirements.

a. Summary of Comments:

1. The training requirements should not apply to personnel who:

- do not actively engage in operating the facility;
- work under the direct supervision of others who are trained.

2. The training requirements should not apply to facilities which:

- generate and dispose of waste on-site.
- dispose of low hazard, large volume wastes on-site.
- treat or store low hazard waste, because such facilities pose no greater threat to the public or the environment than facilities which treat or store hazardous materials with characteristics comparable to low hazard wastes.

b. Analysis of and Response to Comments:

1. The Agency agrees that only personnel who are actively engaged in operating the facility require training in hazardous waste management. The language of the final standard reflects this change.

The Agency does not accept the suggestion that non-supervisory personnel need not meet the training requirements. On the contrary, these personnel are in direct contact with the waste and the equipment used to manage the waste, and thus, as the damage cases cited above show, their actions (or failure to act) -- even more than those of supervisory personnel -- can result in mistakes which might threaten human health or the environment. Unlike the proposed standards, however, the revised rules do not require all facility personnel to receive their training in a formal setting, i.e., the

classroom or training workshop. Thus, facility owners or operators may choose to send only their supervisory personnel to formal training programs, and then have these supervisors conduct informal, on-the-job training sessions for the facilities' non-supervisory personnel.

2. The Agency recognizes that damage incidents are less likely at facilities which dispose of their own waste than at facilities which dispose of other generators' waste because, comparatively speaking, employees at the former type of facility are likely to be more familiar with the identity and chemical properties of the wastes which they manage (i.e., the potential for adulterated or mis-identified waste is reduced). Nonetheless, the Agency believes that there are certain skills/knowledge which are required of <u>all</u> personnel who manage hazardous waste (e.g., familiarity with the facility's contingency plan, plant equipment and chemical characteristics of the waste which the employee is assigned to manage, etc.). In any kind of hazardous waste facility, deficiencies in these skills/knowledge may cause facility personnel to make mistakes which could threaten human health or the environment. Therefore, the training requirements apply to all facilities which manage hazardous waste.

With respect to facilities which dispose of low hazard, high volume waste on-site, the Agency believes that the additional flexibility that has been incorporated into the revised standards (i.e., allowing in-house training, which can be tailored to the specific needs of the employees' job requirements as they relate to hazardous waste management and safety), will allow facilities which manage low hazard waste to tailor their training programs to the degree of hazard associated with their waste management operation.

Turning to the commenter's comparison with hazardous material facilities, the Agency believes that the training requirements which it has prescribed in these rules would be appropriate for facilities which treat or store hazardous materials as well as hazardous waste. RCRA, however, gives the Agency no authority over facilities that do not deal with waste. Those skills which OSHA requires to ensure the safety of workers at hazardous material facilities[10] will, in large part, satisfy the training requirements prescribed by EPA for hazardous waste facilities.

As for the supposed inequity of regulating hazardous waste facilities more stringently than hazardous material facilities, RCRA's statutory

mandate is to prescribe such regulations for hazardous waste facilities as may be necessary to protect human health and the environment. The Agency believes that the training standards which it has prescribed in the Section 3004 RCRA rules are necessary to protect human health and the environment.

Issue #3: The compliance schedule.

a. Summary of Comments:

1. The six months period for compliance with the training requirements may be too short because:

- of the present and short-term future unavailability of training facilities for hazardous waste management;
- in other comparable programs (e.g., water and sewage), certification of plant operators in some areas has taken over a year.

2. For employees hired after the effective date of the regulations, training should be required before waste handling is begun. The rationale for a six month delay is appropriate to avoid disruptions in the work of persons already on the job performing necessary daily functions, but is inappropriate for persons not yet working.

3. The training of personnel should be required in order to receive a permit.

b. Analysis of and Response to Comments:

1. The Agency's selection of 6 months from the effective date of the regulations as the date by which facility personnel must comply with the training requirements, actually gives owners or operators 12 months from the promulgation date of the regulations to ensure that their personnel are adequately trained. The rationale for the selection of a 12 month compliance schedule, rather than a longer period, for the training requirements is contained on pages 9 - 11 of this document.

The Agency believes that the following modifications which have been made to the rules makes the 12 month compliance schedule at least adequate to allow facility personnel to be trained in accordance with the revised rules:

a. The Agency's acceptance of on-the-job training as a means to comply with the training requirements will help to offset the problems caused by the alleged temporary shortage of formal training courses. In areas of the country where formal classes in hazardous waste management are unavailable, in-house training programs and on-the-job training can be used to provide the requisite training.

b. The Section 3004 training standards are being promulgated in two phases. Since the majority of the Phase I standards are non-technical (e.g., the manifest and recordkeeping requirements), the Agency believes that most training can be conducted in-house. When the rest of the Section 3004 standards are promulgated, facility personnel will be given another 12 months from the promulgation date of these additional standards to acquire the training needed to comply with this second set of standards.

Thus, the Agency does not anticipate that the shortage of formal courses in hazardous waste management will cause facility personnel to miss the 12 month deadline for the training requirements.

In addition, as was explained in response to the comments under Issue #1, the regulations have no provision for formal certification of the training received by facility personnel. Therefore, there will be no bottlenecks in a certification process to delay compliance with the training requirements.

2. It would certainly be preferable for facility personnel to be trained before they are allowed to manage hazardous waste. However, the Agency believes that imposing such a requirement is impractical on three counts:

a. Some facilities will rely on formal classroom instruction to comply with the training requirements, and (in some areas of the country) these courses may only be offered once a year. Thus, for these facilities, this requirement might mean that some new employees would not serve in a productive capacity to the facility for a considerable period of time;

b. The requirement would preclude the use of on-the-job training as a means to comply with the training requirement;

c. The requirement would necessitate owners or operators to employ extra personnel to allow for resignations. These extra personnel would be needed to carry out duties normally performed by employees who resigned, until new employees are adequately trained.

The Agency believes that owners or operators and insurers recognize that untrained employees are more likely to have accidents than trained employees. To keep their insurance premium rates low, the Agency expects owners or operators will not assign new employees to manage hazardous waste until after they have been taught the rudiments of the processes used at the facility to properly manage hazardous waste. Although the Agency expects that

most new employees will be trained in-house soon after they are hired, the Agency believes that a reasonable compliance period for the training of these employees must be provided to minimize the potential disruptive influence that the regulations might have on facility operations. Therefore, the 12 month compliance schedule for the final training standards applies to both new and existing facility personnel.

However, an additional provision has been included in the final rules which prohibits new employees from working in unsupervised positions until after they have completed the training requirements of §264.16(a). This provision will allow new employees to work productively soon after they are hired, but will provide more protection to human health and the environment than that provided by the proposed rules, by ensuring that new employees are supervised by trained employees (i.e., do not work alone) until they themselves are trained.

3. Under the Phase I regulations, no permits will be issued to facilities, and thus, the suggested requirement for a facility to train their personnel before receiving a permit is infeasible. Under the Phase II regulations, permits will be issued, but the Agency believes that a 12 month compliance

schedule for the training standards is warranted for reasons stated earlier in this document. Therefore, the Phase II standards do not require facilities to train their personnel before receiving a permit.

Issue #4: "Grandfathering" previous training.

a. Summary of Comments:

The regulation should not reject training or courses of instruction which were given to existing personnel before the effective date of the regulations.

b. Analysis of and Response to Comments:

The regulation does not reject such instruction. The standard requires that personnel "shall have attended ..."; thus, the standard places no limitation on when such training must take place.

However, the Agency believes that even experienced facility personnel will have to receive some additional training. If nothing else, they will have to be taught how to comply with the Section 3004 non-technical requirements (e.g., how to fill out the manifest) which pertain to the duties which they are assigned.

D. Final Regulation Language:

(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this Part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d)(3) of this Section.

(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(b) Facility personnel must successfully complete the program required in paragraph (a) of this Section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this Section.

II. Proposed Standards 250.43-4(b)(2) and (3)

A. Summary of Proposed Standards

The proposed standards required that facility personnel be familiar with the facility's contingency plan, and take part in an annual review of the initial training which they received in hazardous waste procedures relevant to the positions in which they are employed.

B. Rationale for the Proposed Standards

The Agency believed that it makes little sense for a facility to have a contingency plan unless the facility personnel are able to implement the plan in case of an emergency. Thus, the proposed rules required that facility personnel be familiar with the facility's contingency plan.

The Agency also believed that new and more sophisticated technology will be developed for hazardous waste management (due, in part, to the passage and implementation of RCRA), which may result in process changes

at some facilities. In order to keep facility personnel abreast of such changes, and to inform them of the characteristics of wastes which are new to the facility--as well as to review what was taught in the initial training session--the Agency proposed that personnel take part, at least annually, in a review and update of their initial training.

Because changes in facility processes or emergency equipment, or in the type of waste which the facility accepts, may lead to modification of the facility's contingency plan, the Agency specified that the facility's contingency plan should be included in the annual review.

C. Comments Received on the Proposed Standards

The standards should require that facility operators must assure that all employees are aware of safety procedures and are acquainted with facility contingency plans as necessary to ensure effective response to emergencies. As proposed, violations resulting from incompetence could not be enforced from the standpoint of non-compliance with the standard.

D. Analysis of and Response to Comments

The Agency agrees that the suggested revision strengthens the effectiveness of the standards for enforcement purposes. Therefore, the Agency has incorporated language comparable to that suggested in the final rules.

E. Final Regulation Language

(a)(3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

* * *

(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this Section.

In addition to incorporating the elements of proposed §250.43-4(b)(2) into revised §264.16(a)(3), the final standard also includes elements of proposed §250.43-3(a)(8). The Agency believes that since proposed §250.43-3(a)(8) deals with the aspects of the contingency plan which must be taught to facility personnel, it is more appropriate to specify these items in the training standards rather than in the contingency plan standards.

In addition to the items in proposed §250.43-3(a)(8), the Agency has added three items to the list of emergency response procedures with which facility personnel must be familiar:

- response to fires or explosions; and
- response to groundwater contamination incidents.
- shutdown of operations

The Agency has added these three items to the final rules because the examples provided of areas of instruction in which facility personnel were to be trained in proposed §250.43-3(a)(8), were largely concerned with emergency equipment and emergency systems, rather than emergency procedures. However, since the proposed rules required owners or operators to design "a program for familiarizing employees with emergency procedures, emergency equipment, and emergency systems ...", the Agency believes that examples of "emergency procedures" should also be included in the final rules.

Since the majority of the Subpart C standards for Preparedness and Prevention are designed to minimize the hazards associated with fires and explosions", the Agency specified "response to fires and explosions" as one of the examples of an emergency response procedure with which facility personnel must become familiar.

The Agency specified "response to ground-water contamination incidents" as a second example of an emergency response procedure, to illustrate that facility personnel must be trained in procedures to minimize non-sudden, as well as sudden, threats to human health and the environment. The inclusion of this second example in the final rules is in response to comments received

on the proposed Contingency Plan rules, which suggested that the contingency plan include responses to ground-water contamination, as well as acute emergencies.

Because emergencies at facilities will sometimes require that operations at facilities be stopped, the Agency specified "shutdown of operations" as a third example of an emergency procedure with which facility personnel must become familiar.

III. Proposed Standard 250.43-4(b)(1)

A. Summary of Proposed Standard

The proposed standard required that the following records be maintained and made available to the Regional Administrator upon request:

1. A list of the job titles of all positions at the facility related to hazardous waste management, and a written description of:

- the requisite skill, education, responsibilities, and duties for each of these positions; and
- the type and quantity of introductory and continuing training that will be given to each person filling each of the positions.

2. Records which document that the requisite training has been given to facility personnel.

B. Rationale for the Proposed Standard:

The Agency chose not to incorporate a certification program into its training requirements (see page 14 of

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this document for an explanation of this decision). Therefore, an alternate approach had to be devised to ensure that facility personnel, charged with specific duties related to hazardous waste management, have the requisite training and competence to perform these duties.

The Agency believed and believes that if the training records of facility personnel are subject to scrutiny by the Regional Administrator, then owners or operators will be more apt to provide their employees with the level of training necessary to perform their duties in a manner which complies with the training requirements of Section 264.16(a), than would be the case if no records were required. The requirement for maintaining facility personnel training records provides a review framework substituting for that of a certification program.

C. Summary and Response to Comments

Issue #1: Personnel records and the 1976 Privacy Act

a. Summary of Comments:

The requirement that individual personnel training records be made available to the Regional Administrator may constitute an invasion of privacy and thus be inconsistent with the privacy rights of individual employees (Privacy Act of 1974, 5 U.S.C. §552a (1976)). The Regional Administrator does not

need, and should not have, access to the job descriptions of facility personnel.

b. Analysis of and Response to Comments:

The commenter is apparently relying upon 5 U.S.C. 552a(e)1 of the Privacy Act of 1974, which specifically allows each agency (including the EPA) that maintains or collects a system of records to

> (1) maintain in its records only such information about an individual as is relevant and necessary to accomplish a purpose of the agency required to be accomplished by statute or by executive order of the President; [emphasis added]

The information required by the proposed standards is both necessary and relevant to the attainment of RCRA's statutory purposes. The commenter has specifically objected to giving the Regional Administrator access to (1) job descriptions, and (2) personnel training records. The job descriptions describe positions rather than individuals; thus they are not private personal information. They are also essential to any regulatory evaluation of the adequacy of the facility's training program; thus the Regional Administrator has a legitimate need for them. Personnel training records may well include "information about an individual." However, in the absence of a certification program or an agency-administered training program, they are necessary for the Agency to

determine that personnel have the skills called for by their job descriptions and their specific duties in handling hazardous wastes. Thus, both sets of records can be provided to the Regional Administrator without conflict with the Privacy Act.

The privacy interests of employees at hazardous waste facilities are also protected by an additional safeguard after the Agency reviews the personnel training records. Section 552(a)(2) of the Freedom of Information Act (FOIA) says in part:

> To the extent required to prevent a clearly unwarranted invasion of personal privacy, an agency may delete identifying details when it makes available or publishes an opinion, statement of policy, interpretation, or staff manual or instruction.

and Section 552(b) of the FOIA reads:

> (b) This section [requiring release upon request] does not apply to matters that are -
>
> (6) personnel and medical files and similar files the disclosure of which would constitute clearly unwarranted invasion of personal privacy; [emphasis added]

Thus, the Agency has full authority to prevent indiscriminate dissemination of the personnel training records once it has reviewed them. This safeguard, while not relevant to the Privacy Act claim raised in the comment, provides additional support for the Agency's decision that employees'

privacy interests in their personnel training files do not outweigh the need to know that employees who handle hazardous waste are adequately trained.

Issue #2: The required level of detail of the recordkeeping requirements.

a. Summary of Comments:

1. The requirement for detailed written job descriptions may lead to union grievances and arbitrations because such detailed job descriptions:

- tend to limit the scope of the job
- tend to lower operator productivity
- are difficult to keep current in some industries due to frequent process modifications.

In order to avoid this type of labor problem, Section 250.43-4(b)(ii) should be revised as follows:

> A written job description for each position listed under paragraph (b)(1)(ii) which shall be consistent in nature with practices for other positions in the same company location or bargaining unit ...

2. The standard places too large an emphasis on bureaucratic recordkeeping, and entails additional costs which serve no useful purpose. The standard should be revised to require facility operators to make available to the Regional Administrator, upon

request, a list of all employees, their duties, and qualifications.

b. Analysis of and Response to Comments:

1. It is not the Agency's intent to interfere with labor-management issues. EPA's only interest in the job descriptions of facility personnel is to enable the Agency to evaluate each employee's potential for making a mistake which might threaten human health or the environment. This, in turn, will help the Agency determine if each person is receiving a level of training that is commensurate with the person's duties and responsibilities. The Agency believes that the suggested rewording of the standard will not diminish the Regional Administrator's ability to make this determination, and therefore has revised the standard as follows:

> "A written job description for each position listed under paragraph (d)(1) of this Section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, ..."

2. The Agency believes that all of the recordkeeping requirements which are included in the training standards are necessary in order to carry out the intent of the standard. That is, the intent of the

standard is to provide the Regional Administrator with a mechanism to evaluate whether a facility's personnel are receiving the type of training which they need in order to perform their duties in a competent manner.

The commenters have suggested that the standard should only require facility operators to make available to the Regional Administrator, upon request, a list of all employees, their duties, and qualifications. The difference between this suggested requirement and the requirement contained in the proposed standards, depends on how one interprets the commenters' use of the term "qualifications". Presumably, the commenters use the term to mean something along the lines of a resumé. If so, then the Agency disagrees with the commenters' suggestion. The employee's training records are the most important pieces of information that the Regional Administrator needs to determine if facility personnel are receiving the type of training which they need to perform their duties in a competent manner. Most resumés do not contain the level of detail which the Regional Administrator needs to make this determination.

The Agency believes that the proposed wording of the standard accurately reflects the type of

information which the Regional Administrator will need to carry out the standard's intent. Therefore, the Agency has not incorporated the second suggested revision into the final rules.

D. Final Regulation Language

(d) The owner or operator must maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under paragraph (d)(1) of this Section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this Section;

(4) Records that document that the training or job experience required under paragraphs (a), (b), and (c) of this Section has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

§264.16(e) was adopted from the section of the proposed regulations which deals with Manifest, Record-keeping, and Reporting (§250.43-5(b)(5)). The Agency believes that the grouping of the standards which deal with training records into the same section of the

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revised rules, reduces the need to cross-reference within the regulations, and thus makes the revised rules easier to follow than the proposed rules. Response to comments on proposed §250.43-5(b)(5) is contained in the background document for Manifest, Recordkeeping, and Reporting.

IV. General Comments on all of the Proposed Training Standards

Comment #1: The section of the regulations on training should simply require that personnel be trained in hazardous waste management. The details should be left to the owner or operator.

Response: The level of flexibility that the commenter has suggested is such that it would be impossible for the Agency to bring enforcement actions against facilities which did not comply with the suggested standard. However, the Agency believes that the modifications which have been made to the standards (i.e., allowing the training program to be tailored to the employees' job requirements and allowing on-the-job training) achieve the intent of what the commenter has requested, i.e., more flexibility.

Comment #2: The requirements of the training section will distort low-hazard or non-hazard jobs so as to create unjustified "hazard" classifications and unnecessary demands for "hazard" pay. The standards should be modified so as to avoid creating problems in collective bargaining in manufacturing activities.

Response: The training standards only require that facility personnel acquire training in the skills needed to perform their duties in a competent manner. The standards do not require that personnel in "low-hazard positions" receive training needed to perform "highly-hazardous duties." Thus,

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the Agency does not believe that the promulgation of its training requirements will give rise to unjustified demands for "hazard" pay. Insofar as the required training makes the employees aware of previously unrecognized hazards in their work, the Agency expects this to lead to a desirable increase in the caution with which employees handle hazardous waste.

References

1. RCRA Legislative History in U.S. Code: Congressional and Administrative News. 94th Congress, 2nd Session, Volume 5, 1976. U.S. Congress. House Report on the Committee on Interstate and Foreign Commerce. House Document 94-1941, p. 19.

2. Morning Advocate, Baton Rouge, LA, July 29, 1978.

3. Confirmed by telephone on November 14, 1979, by Cindy Giansante, Environmental Scientist, EPA, Washington, D.C., with Colton B. Phillips, Sanitary Supervisor, Genessee County Health Department, Michigan.

4. Hazardous Waste Generation - Twin Cities Metropolitan Area. Barr Engineering Company, Minneapolis, Minnesota. October, 1973, p. B-2.

5. Comments submitted by Dr. Steve Miesel, Ph.D, Temple University, on a Pre-Proposal Draft (March 24, 1978) of the RCRA Section 3004 Standards, June 29, 1978.

6. Comments submitted by W.C. Parnell of the E.I. DuPont De Nemours & Company, on the Proposed EPA Survey: Training of Hazardous Waste Facility Operators, September 19, 1979.

7. Occupational Safety and Health Administration, U.S. Department of Labor, Training Requirements of OSHA Standards (OSHA 2254), February 1976, Washington, D.C.: U.S. Government Printing Office, 63 pages.

8. Special Substances Report 1977, Volume I. Industrial Special Wastes Generated in Iowa and Manpower Characteristics of Employee Handlers. Contract #76-4300-01, p. 51.

9. U.S. Environmental Protection Agency. Hazardous Waste Management Issues Pertinent to Section 3004 of the Resource Conservation and Recovery Act of 1976. Office of Solid Waste. EPA Contract No. 68-01-4657, Sept. 1978 p. 219.

10. Op. cit. Training Requirements of OSHA Standards.

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APPENDIX I

State Regulations which were reviewed:

Arkansas Proposed Hazardous Waste Regulations (July 27, 1979).

Connecticut Department of Environmental Protection Solid Waste Management Regulations; Section 19-524-1 through 19-524-12; Adopted January 10, 1975; Amended January 4, 1978.

New York State, Part 360, Solid Waste Mangement Facilities (May 17, 1977), Section 360.7 Facility Operator Requirements.

Oregon Solid Waste Control (1977), Chapter 459.517.

Washington Hazardous Waste Regulations (July 12, 1978) WAC 173-302-320 Personnel Requirements.

APPENDIX II

§264.16 Personnel Training

(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this Part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d)(3) of this Section.

(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(b) Facility personnel must successfully complete the program required in paragraph (a) of this Section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this Section.

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(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this Section.

(d) The owner or operator must maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under paragraph (d)(1) of this Section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this Section;

(4) Records that document that the training or job experience required under paragraphs (a), (b), and (c) of this Section has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

[§§264.17 - 264.29 Reserved]